

In the Claims

1. (Currently Amended) An electronic ballast having a photocell circuit unit [100] (100), a DC transformation unit [200] (200) and a CF lamp driving circuit unit [400] (400), being characterized in that the CF lamp driving circuit unit [400] (400) comprises:

a voltage divider [401] (401) for dividing [a DC] power supplied from the DC transformation unit [200] (200) into a lamp power and a circuit driving power;

field effect transistors Q1 and Q2 for controlling a voltage of the circuit driving power supplied from the voltage divider [401] (401) to provide [it as] a voltage for high frequency oscillation;

a resistor [R12,] (R12) and diodes [D7, D8 and D9] (D7, D8, and D9) provided at [the] a front stage of the field effect transistors [Q1 and Q2,] (Q1 and Q2) for preventing a voltage higher than a predetermined voltage from being applied to the field effect transistors [Q1 and Q2] (Q1 and Q2);

a triac [TA2] (TA2) for preventing line surge from being applied to [the] gates of the field effect transistors [Q1 and Q2] (Q1 and Q2);

Zenor diodes [D12 and D13] (D12 and D13) for making the voltage through the field effect transistors [Q1 and Q2] (Q1 and Q2) a constant voltage;

a plurality of oscillation coils [L3 ~ L5] (L3 ~ L5) that oscillate at high frequency according to the constant voltage produced by the Zener diodes [D12 and D13] (D12 and D13) to generate a high frequency [(25Khz ~ 30Khz)];

a [bulb BULB] lamp for receiving the high frequency generated by the oscillation coils [L3 and L4] (L3 and L4) through a choke coil [CT] (CT) to turn on the [CF] lamp; and

diodes [D14 and D15] (D14 and D15) and condensers [C10 and C11] (C10 and C11) connected to one side of the [bulb BULB,] lamp for [removing] supressing a surge voltage [occurring] when the lamp is connected to [the] a socket in order to protect the lamp and the socket.

2. (Currently Amended) The electronic ballast claimed in claim 1, wherein the voltage divider [401] (401) comprises a first diode [D5] (D5) and a first condenser [C6] (C6) connected to the output terminal of the DC transformation unit [200,] (200) for supplying the circuit driving power, and a second diode [D6] (D6) and a second condenser [C8] (C8) connected to the output terminal of the DC transformation unit [200,] (200) for preventing the

lamp power from being introduced to the driving circuit side.

3. (Currently Amended) An electronic ballast having a power supply [601] (601), a power supply unit [610] (610), and a DC transformation and boosting unit [700,] (700), being characterized [in that it comprises] by:

a lamp driving unit [800] (800) that oscillates according to a power supplied from the DC transformation and boosting unit [700] (700) to selectively turn on a plurality of lamps [(fluorescent lamp, CF lamp)]; and

anti-overheating unit [900] (900) for instantly bypassing a high voltage when the [lamp is] plurality of lamps are turned on by [a] said lamp driving unit 800 in order to prevent over-heating [of a bulb].

4. (Currently Amended) The electronic ballast claimed in claim 3, wherein the lamp driving unit [800] (800) comprises:

field effect transistors [T1 and T2] (T1 and T2) for controlling [the] a voltage supplied from the DC transformation and boosting unit [700] (700) to supply the voltage for high frequency oscillation;

resistors [R11 and R12] (R11 and R12) and diodes [D5 ~ D7] (D5 ~D7) provided at [the] a front stage of the field effect transistors [T1 and T2] (T1 and T2), for preventing a voltage higher than a predetermined voltage from being applied to the field effect transistors [T1 and T2] (T1 and T2);

Zener diodes [ZD1 and ZD2] (ZD1 and ZD2) for making the voltage through the field effect transistors [T1 and T2] (T1 and T2) a constant voltage;

a plurality of oscillation coils [L1 ~ L3] (L1 ~L3) that oscillate at high frequency according to the constant voltage from the Zener diodes [ZD1 and ZD2] (ZD1 and ZD2) to generate a high frequency;

[a] said plurality of [bulbs BULB1 and BULB2 for] lamps using the high frequency from the oscillation coils [L1 ~ L2] (L1 ~ L2) through choke coils [CT1 and CT2] (CT1 and CT2) to selectively turn on [a] said plurality of lamps (fluorescent lamp, CF lamp, etc.); and

a plurality of diodes [D10, D11, D15 and D16] (D10, D11, D15 and D16) and condensers [C11, C12, C14 and C15] (C11, C12, C14 and C15), which are connected between the oscillation coil [L2] (L2) and the plurality of the [bulbs BULB1 and BULB2] lamps (BULB1 AND BULB2), for offsetting a surge voltage occurring when the [lamp is]

lamps are connected to [the] a respective socket in order to protect the [lamp] lamps and the respective socket.

5. (Currently Amended) The electronic ballast claimed in claim 3, wherein the anti-overheating unit [900] (900) comprises an inductance [L5] (L5) and a condenser [C20] (C20) that instantly amplify the voltage and current to bypass [the] a voltage and current to [the] a rear stage, when the [lamp is] lamps are turned on.